CLAIMS

What is claimed is:

1. An improved metal grate for a gas stove, comprising:

a metal grate having a base that forms a perimeter of the grate and having a plurality of prongs, each prong protruding from the base and rising inwardly toward a central flame area,

a heat warning symbol on a surface of the base for warning individuals that the metal grate is hot, said heat warning symbol comprising:

a thermochromic composition designed to undergo and maintain a readily perceptible color change whenever and so long as a temperature of the surface exceeds a predetermined temperature, said color change revealing a predetermined symbol that communicates that the surface is dangerously hot, the symbol readily visible against a background color of the surface only when and so long as the temperature of the surface exceeds the predetermined temperature,

the thermochromic composition capable of withstanding temperatures in excess of approximately 300 degrees Fahrenheit, having a thickness of less than approximately one sixteenth of an inch and lacking any covering or overcoat,

the metal grate supporting cooking utensils placed thereon.

2. The metal grate of claim 1, wherein the heat warning symbol is on an upper surface of the base.

3. The metal grate of claim 1, wherein the thermochromic composition is ink or epoxy resin.

4. The metal grate of claim 1, wherein a buffer layer is inserted directly underneath the heat warning symbol, said buffer layer comprising a thermally conductive adhesive capable of withstanding a temperature of at least approximately 400 degrees Fahrenheit.

5. The metal grate of claim 1, wherein the heat warning symbol is the letters "H", "O","T".

6. An accessory for supporting a heating element on a top surface of a stove, comprising:

a metal bowl having an upper lip and a substantially hemispheric bowl wall,

a heat warning symbol on a surface of the lip for warning individuals that the accessory, grate and/or electric coil is hot, said heat warning symbol comprising:

a thermochromic composition designed to undergo and maintain a readily perceptible color change whenever and so long as a temperature of the surface exceeds a predetermined temperature, said color change revealing a predetermined symbol that communicates that the surface is dangerously hot, the symbol readily visible against a background color of the surface only when and so long as the temperature of the surface exceeds the predetermined temperature,

the thermochromic composition capable of withstanding temperatures in excess of

approximately 300 degrees Fahrenheit, having a thickness of less than approximately one sixteenth of an inch and lacking any covering or overcoat,

the accessory for collecting food residue that drips below the heating element.

7. The accessory of claim 6, wherein the metal bowl rests on a metal ring that engages a top surface of the stove.

8. The device of claim 6, wherein the thermochromic composition is ink or epoxy resin.

9. The accessory of claim 6, wherein the bowl wall has a second lip.

10. The accessory of claim 6, wherein a buffer layer is inserted directly underneath the heat warning symbol, said buffer layer comprising a thermally conductive adhesive capable of withstanding a temperature of at least approximately 400 degrees Fahrenheit.

11. An accessory for supporting a metal bowl that collects food residue, said metal bowl supporting a heating element, such as an electric coil a grill or a griddle on a top surface of a stove, comprising:

a metal ring having an upper surface and supporting and surrounding the metal bowl, the ring engaging a top surface of the stove so that an outer portion of an upper surface of the metal ring is visible,

a heat warning symbol on the outer portion of the upper surface of the ring for warning

individuals that the heating element and/or the bowl is hot, said heat warning symbol comprising:

a thermochromic composition designed to undergo and maintain a readily perceptible color change whenever and so long as a temperature of the surface exceeds a predetermined temperature, said color change revealing a predetermined symbol that communicates that the surface is dangerously hot, the symbol readily visible against a background color of the surface only when and so long as the temperature of the surface exceeds the predetermined temperature, and

the thermochromic composition capable of withstanding temperatures in excess of 300 degrees Fahrenheit, having a thickness of less than approximately one sixteenth of an inch and lacking any covering or overcoat.

12. The accessory of claim 11, wherein the thermochromic composition is ink or epoxy resin.

13. The accessory of claim 11, wherein a buffer layer is inserted directly underneath the heat warning symbol, said buffer layer comprising a thermally conductive adhesive capable of withstanding a temperature of at least approximately 400 degrees Fahrenheit.

14. An accessory for a gas stove having on its top surface metal grates of the kind that include a base and a plurality of prongs protruding from the base and rising inwardly toward a central flame area, the accessory comprising:

a metal ring having an upper surface and supporting and surrounding a metal grate, the

metal ring resting at least partially on the top surface of the gas stove

a heat warning symbol on the upper surface of the ring for warning individuals that the accessory and/or metal grate is hot, said heat warning symbol comprising:

a thermochromic composition designed to undergo and maintain a readily perceptible color change whenever and so long as a temperature of the surface exceeds a predetermined temperature, said color change revealing a predetermined symbol that communicates that the surface is dangerously hot, the symbol readily visible against a background color of the surface only when and so long as the temperature of the surface exceeds the predetermined temperature, and

the thermochromic composition capable of withstanding temperatures in excess of 300 degrees Fahrenheit, having a thickness of less than approximately one sixteenth of an inch and lacking any covering or overcoat.

15. The accessory of claim 14, wherein the thermochromic composition is ink or epoxy resin.

16. The accessory of claim 14, wherein a buffer layer is inserted directly underneath the heat warning symbol, said buffer layer comprising a thermally conductive adhesive capable of withstanding a temperature of at least approximately 400 degrees Fahrenheit

17. An improved grill for heating food safely, comprising:

a plurality of metal bars on which food is exposed to heat,

a support for holding the bars together,

a hollow container supporting the bars and support and containing a heat source,

the grill including an outer perimeter near a conjunction of the hollow container and the plurality of metal bars, the outer perimeter having a visible surface, and

a heat warning symbol on the visible surface for warning individuals that the grill is hot, said heat warning symbol comprising

a thermochromic composition designed to undergo and maintain a readily perceptible color change whenever and so long as a temperature of the surface exceeds a predetermined temperature, said color change revealing a predetermined symbol that communicates that the surface is dangerously hot, and

the thermochromic composition capable of withstanding temperatures in excess of approximately 300 degrees Fahrenheit, having a thickness of less than approximately one sixteenth of an inch.

18. The improved grill of claim 17, wherein the thermochromic composition lacks any covering or overcoat.

19. The improved grill of claim 17, wherein the symbol is readily visible against a background color of the surface only when and so long as the temperature of the surface exceeds the predetermined temperature.

20. The improved grill of claim 17, wherein the thermochromic composition lacks any

covering or overcoat and wherein the symbol is readily visible against a background color of the surface only when and so long as the temperature of the surface exceeds the predetermined temperature.

21. The improved grill of claim 17, wherein the thermochromic composition is ink or epoxy resin.

22. The improved grill of claim 17, wherein the bars are tubular and at least two of the bars are substantially parallel.

23. The improved grill of claim 17, wherein the thermochromic composition has a see-through overcoat for filtering ultra violet light.

24. The improved grill of claim 17, wherein a buffer layer is inserted directly underneath the heat warning symbol, said buffer layer comprising a thermally conductive adhesive capable of withstanding a temperature of at least approximately 400 degrees Fahrenheit.

25. The improved grill of claim 24, wherein the adhesive is ceramic or epoxy adhesive.

26. An improved griddle for heating food safely, comprising:

a flat metal surface on which food is exposed to heat,

a source of heat connected to the flat metal surface,

the flat metal surface including an outer perimeter, said outer perimeter having a visible surface, and

a heat warning symbol on the visible surface for warning individuals that the griddle is hot, said heat warning symbol comprising

a thermochromic composition designed to undergo and maintain a readily perceptible color change whenever and so long as a temperature of the surface exceeds a predetermined temperature, said color change revealing a predetermined symbol that communicates that the surface is dangerously hot,

the thermochromic composition capable of withstanding temperatures in excess of 300 degrees Fahrenheit, having a thickness of less than approximately one sixteenth of an inch and lacking any covering or overcoat.

27. The improved griddle of claim 26, wherein the thermochromic composition lacks any covering or overcoat.

28. The improved griddle of claim 26, wherein the symbol is readily visible against a background color of the surface only when and so long as the temperature of the surface exceeds the predetermined temperature.

29. The improved griddle of claim 26, wherein the thermochromic composition lacks any covering or overcoat and wherein the symbol is readily visible against a background color of the surface only when and so long as the temperature of the surface exceeds the predetermined

temperature.

30. The improved griddle of claim 26, wherein the thermochromic composition is ink or epoxy resin.

31. An improved griddle for heating food safely, comprising:

a flat metal surface on which food is exposed to heat,

a source of heat connected to the flat metal surface,

the flat metal surface including an outer perimeter,

a thin buffer layer of adhesive on the outer perimeter, the buffer layer having a visible surface, the buffer layer capable of withstanding a very high temperature typically reached on the flat metal surface of the improved griddle, and

a heat warning symbol on the visible surface for warning individuals that the griddle is hot, said heat warning symbol comprising

a thermochromic composition designed to undergo and maintain a readily perceptible color change whenever and so long as a temperature of the surface exceeds a predetermined temperature, said color change revealing a predetermined symbol that communicates that the surface is dangerously hot,

the thermochromic composition capable of withstanding temperatures in excess of approximately 300 degrees Fahrenheit and lacking any covering or overcoat

the thermochromic composition and the buffer layer of epoxy having a combined thickness of less than approximately one sixteenth of an inch.

32. The improved griddle of claim 31, wherein the adhesive is an epoxy adhesive or a ceramic adhesive.

33. The improved griddle of claim 31, wherein the thermochromic composition lacks any covering or overcoat.

34. The improved griddle of claim 31, wherein the symbol is readily visible against a background color of the surface only when and so long as the temperature of the surface exceeds the predetermined temperature.

35. The improved griddle of claim 31, wherein the thermochromic composition lacks any covering or overcoat and wherein the symbol is readily visible against a background color of the surface only when and so long as the temperature of the surface exceeds the predetermined temperature.

36. The improved griddle of claim 31, wherein the thermochromic composition is ink or epoxy resin.